202206UECM1404OE1b

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Review of preview

Started on	Sunday, 3 July 2022, 04:53 PM
Completed on	Sunday, 3 July 2022, 04:53 PM
Time taken	5 secs
Grade	**0** out of a maximum of 10 (**0**%)

1
Marks: 1

You are given two loans, with each loan to be repaid by a single payments in the future. Each payment include both principal and interest. The first loan is repaid by a 4400 pyament at the end of 4 years. The interest is accrued at 8% per annum compounded semiannually. The second loan is repaid by a 5400 pyament at the end of 5 years. The interest is accrued at 6% per annum compounded semiannually. These two loans are to be consolidated. The consolidated loan is to be repaid by two equal instalments of X, with interest 10% per annum compounded semiannually. The first payment is due immediately and the second payment is due one year from now. Calculate X. _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 3792.89
Marks for this submission: 0/1.

2
Marks: 1

At a certain interest rate the present value of the following two payment patterns are equal:

- 260 at the end of 5 years plus 567 at the end of 10 years.
- 645.89 at the end of 5 years.

At the same interest rate, 130.0 invested now plus 340.0 invested at the end of 5 years will accumulate to P at the end of 10 years. Calculate P. _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 780.233645
Marks for this submission: 0/1.

3
Marks: 1

Payments of 650, 600,900 are due at the ends of year 2, 4 and 7 respectively. Assuming an effective rate of interest of 4.00% per annum, determine the point in time, t, at which a payment of RM2150 would be equivalent. _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 4.5619
Marks for this submission: 0/1.

4
Marks: 1

Payments of 320, 520, and 720 are made at the end of years 5, 6 and 8, respectively. Interest is accumulated at an annual effective rate of 6%. You are to find the point in time at which single payment of 1560 is equivalent to the above series of payments. You are given:

- X is the point in time calculated by the method of equated time.

- Y is the exact point in time.

Calculate X+Y. _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 11.7179
Marks for this submission: 0/1.

5
Marks: 1

Jeff puts 100 into a fund that pays an effective annual rate of discount of 16% for the first two years and a force of interest of rate $\delta_t = 2t/(t^2 + 12)$, $2 \le t \le 4$, for the next two years. At the end of four years, the amount in Jeff's account is the same as what it would have been if he had put 100 into an account paying interest at the nominal rate of i per annum compounded quarterly for four years. Calculate i. _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 0.23365
Marks for this submission: 0/1.

6
Marks: 1

At time $t = 0$, John deposit 4,000 into a fund which credits interest at a nominal interest rate of 12% compounded semiannually. At the same time, he deposits P into a different fund which credits interest at a nominal discount rate of 7% compounded monthly. At time $t = 18$, the amount in each fund are equal. What is the annual effective interest rate earned on the total deposit, $4000+P$, over the 18-year period? _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 0.092726
Marks for this submission: 0/1.

7
Marks: 1

You are given a loan on which interest is charged over 4-year period, as follows:

- an effective rate of discount of 5.9% for the first year;
- a nominal rate of discount of 5.8% compounded every 2 years for the second year;
- a nominal rate of interest of 5.5% compounded semiannually for the third year; and
- a force of interest of 7.4 for the forth year.

Calculate the annual effective rate of interest over the 4-year period. _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 0.064686
Marks for this submission: 0/1.

8
Marks: 1

A loan of 9,000 is made at an interest rate of 16% compounded quaterly. The loan is to be repaid with three payments: 3,600 at the end of first year, 7,200 at the end of 6-th year, and the balance at the end of the tenth year. Calculate the amount of final payment. _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 14949.563488
Marks for this submission: 0/1.

9
Marks: 1

An investment of 1 will double in 16.5035 years at a force of interest = δ. An investment of 1 will increase to 34.7767 in n years at a nominal rate of interest numerically equal to δ and convertible once every 2 years. Calculate n. _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 88
Marks for this submission: 0/1.

10
Marks: 1

You invest 5600 today and plan to invest another 2800 two years from today. You plan to withdraw 84,000 in n years and another 84,000 in n+5 years, exactly liquidating your investment account at that time. If the effective rate of discount is equal 6%, find n. _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 9.533171
Marks for this submission: 0/1.